(12) UK Patent Application (19) GB (11) 2 370 108 (13) A

(43) Date of A Publication 19.06.2002

(21) Application No 9913725.9

(22) Date of Filing 12.06.1999

(71) Applicant(s)
Gogas (UK) PLC
(Incorporated in the United Kingdom)
Wear Mill, King Street West, Stockport, Cheshire, SK3 0AJ, United Kingdom

(72) Inventor(s)
Michael Campbell Oakes
John Burgess

(74) Agent and/or Address for Service
Wilson Gunn M'Caw
41-51 Royal Exchange, Cross Street, MANCHESTER, M2 7BD, United Kingdom

(51) INT CL[7]
F24C 3/14 , A47J 36/24 , F24C 15/28

(52) UK CL (Edition T)
F4W W44G

(56) Documents Cited
GB 0474326 A **US 4512329 A**

(58) Field of Search
UK CL (Edition R) **A4D DX D9A , F4W**
INT CL[7] **A47J 36/00 36/24 36/26 37/07 , F24C 3/14 15/28**
ONLINE DATABASES: WPI EPODOC JAPIO

(54) Abstract Title
Windshield for a burner

(57) A windshield for a burner comprises two wings (17, 18) pivotally joined by a base (19). The wings are connected to legs (2-4) which may be pivoted from a stowed to an extended position in which they provide a support for the burner. In the stowed position the wings lie alongside the stowed legs and in the extended position (as shown) they adopt a V-shape between two of the legs. The arrangement provides an efficient wind shield which may be readily stored for transportation.

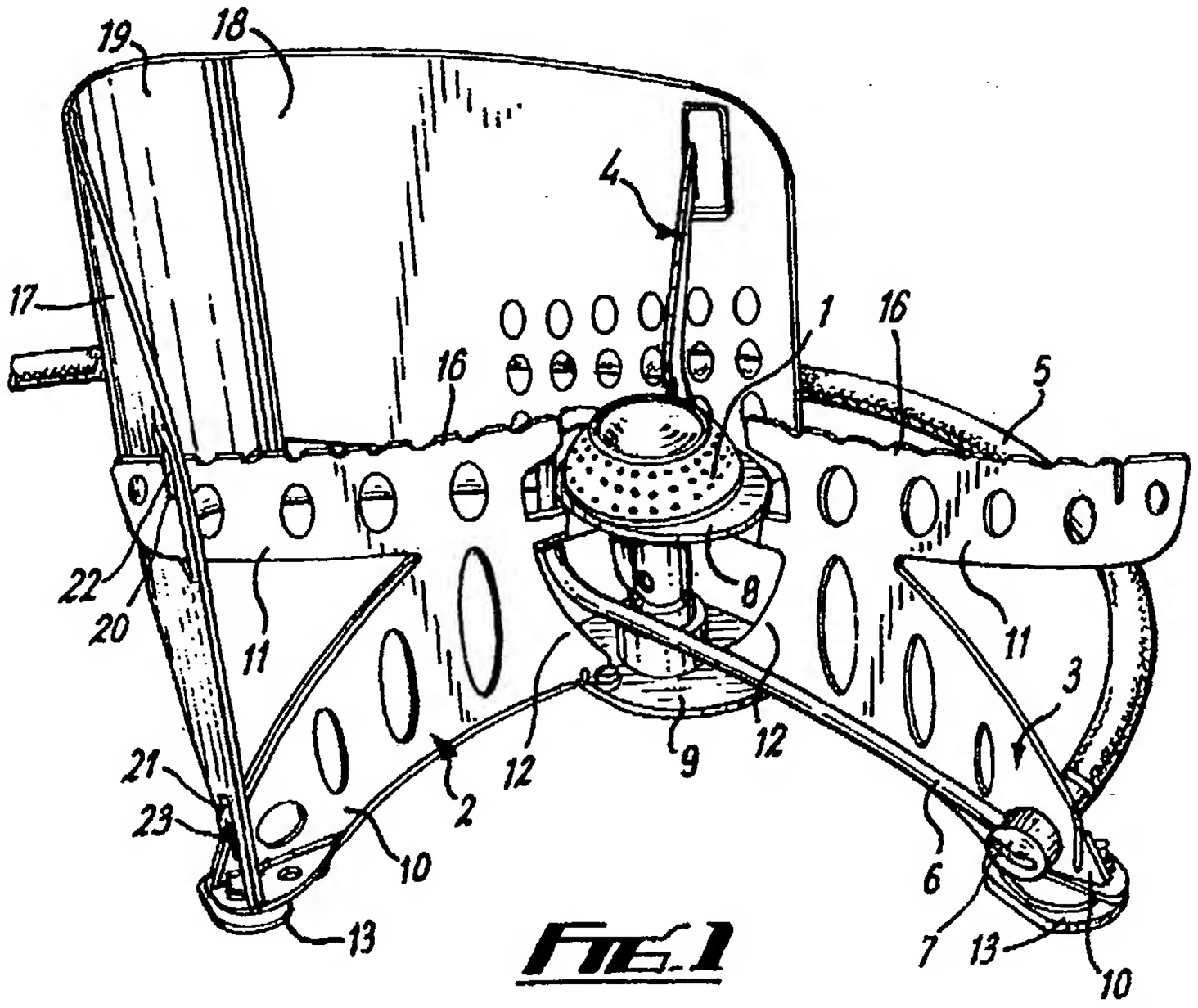

FIG.1

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

GB 2 370 108 A

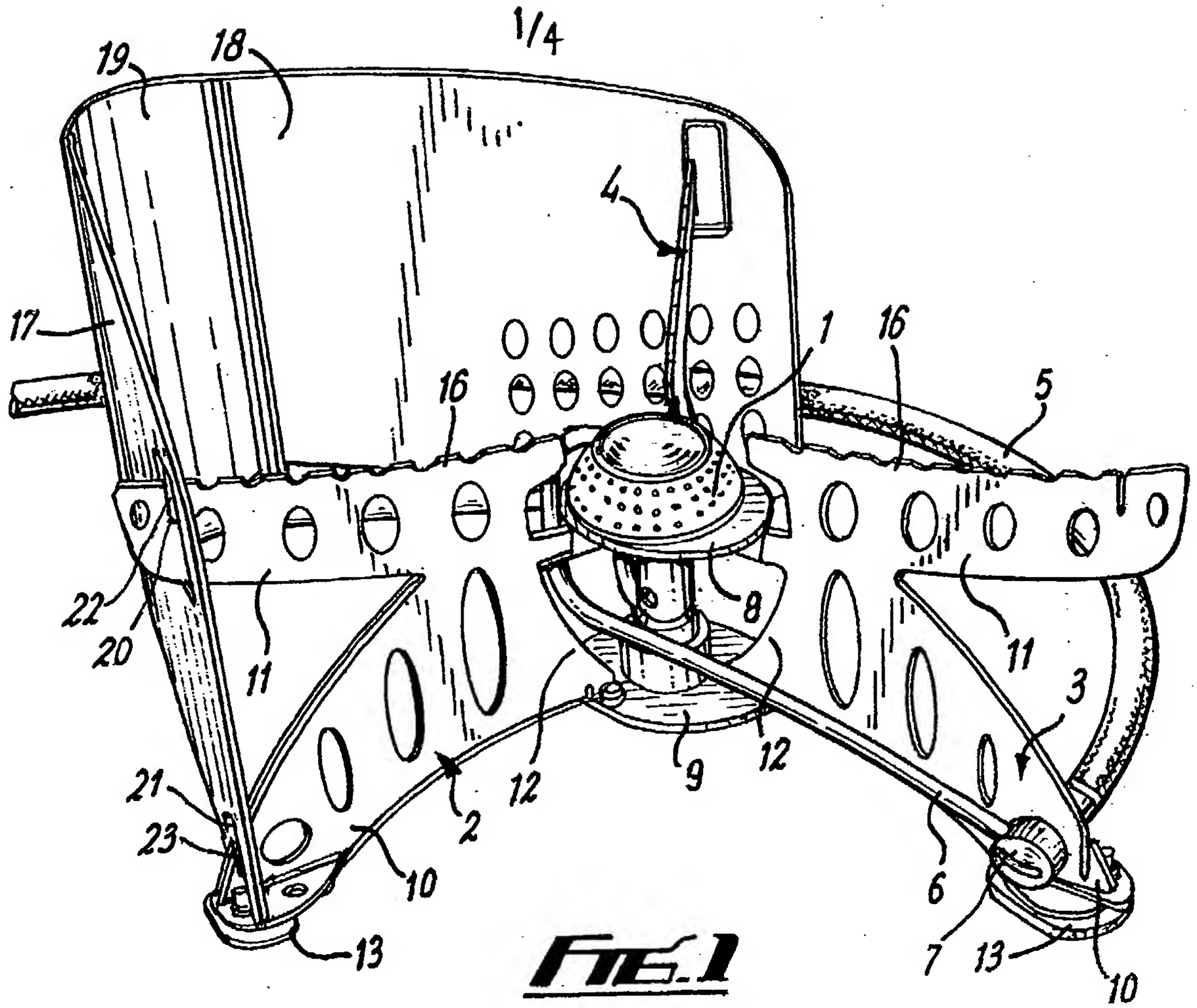

FIG.1

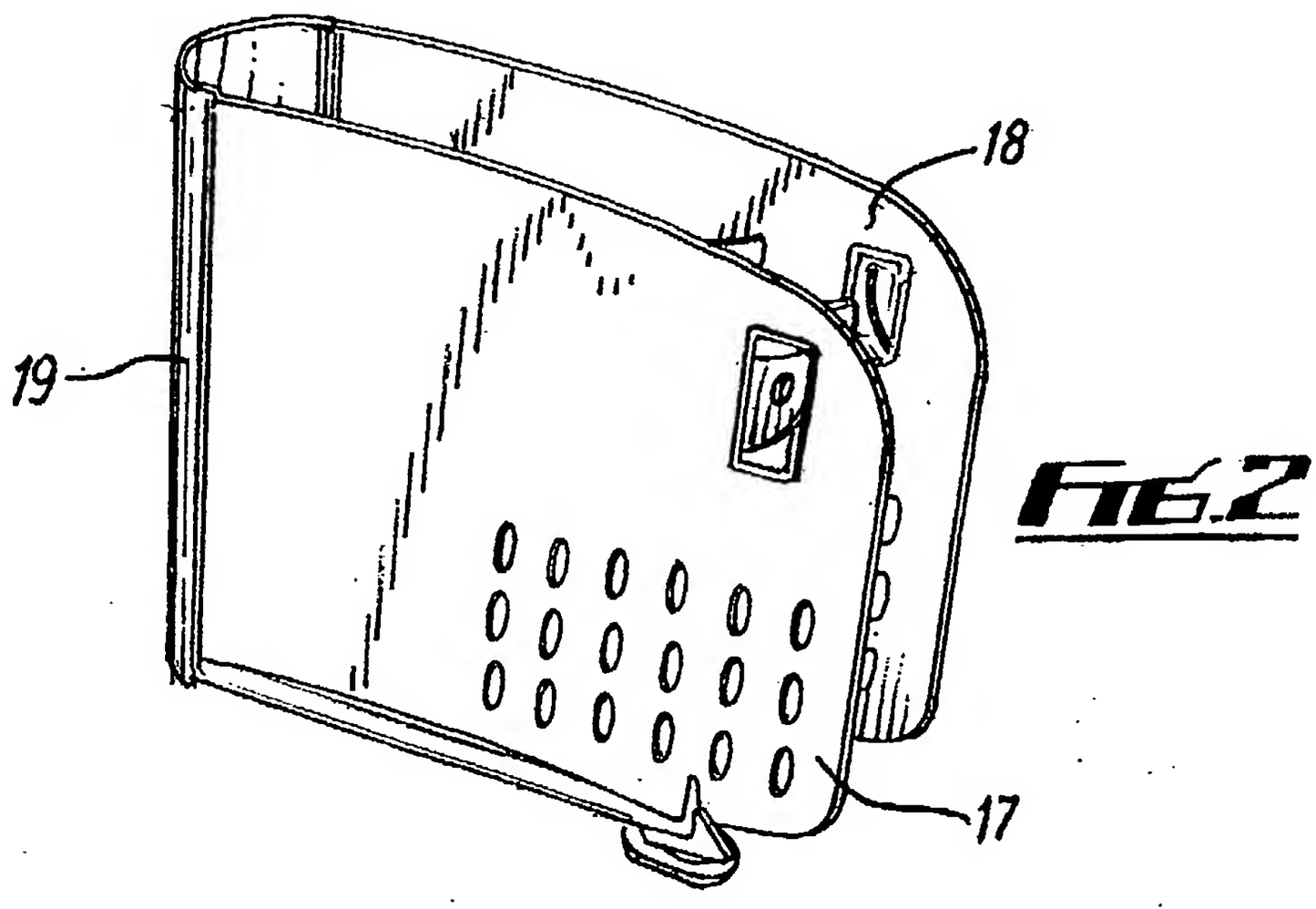

FIG.2

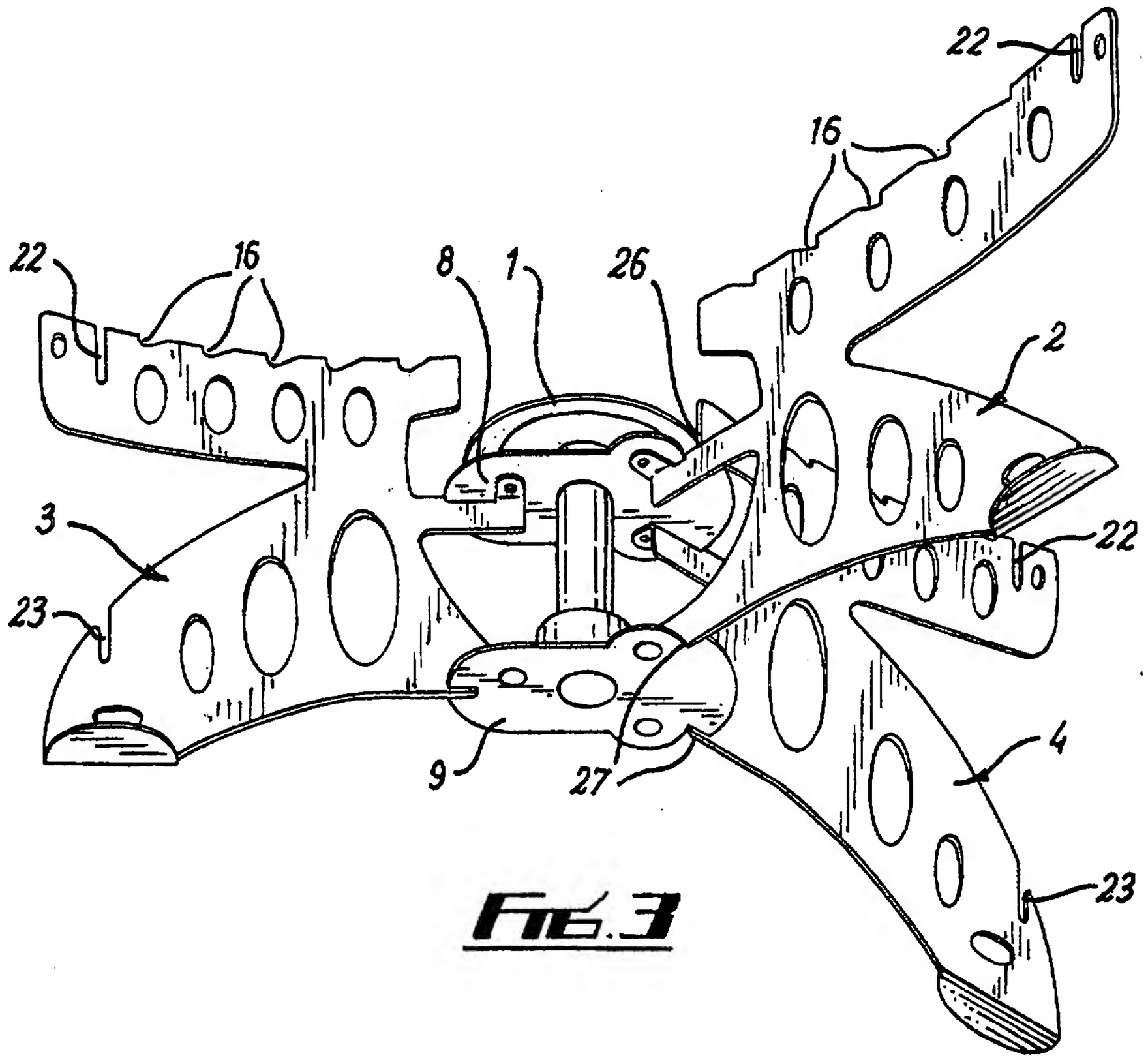

FIG.3

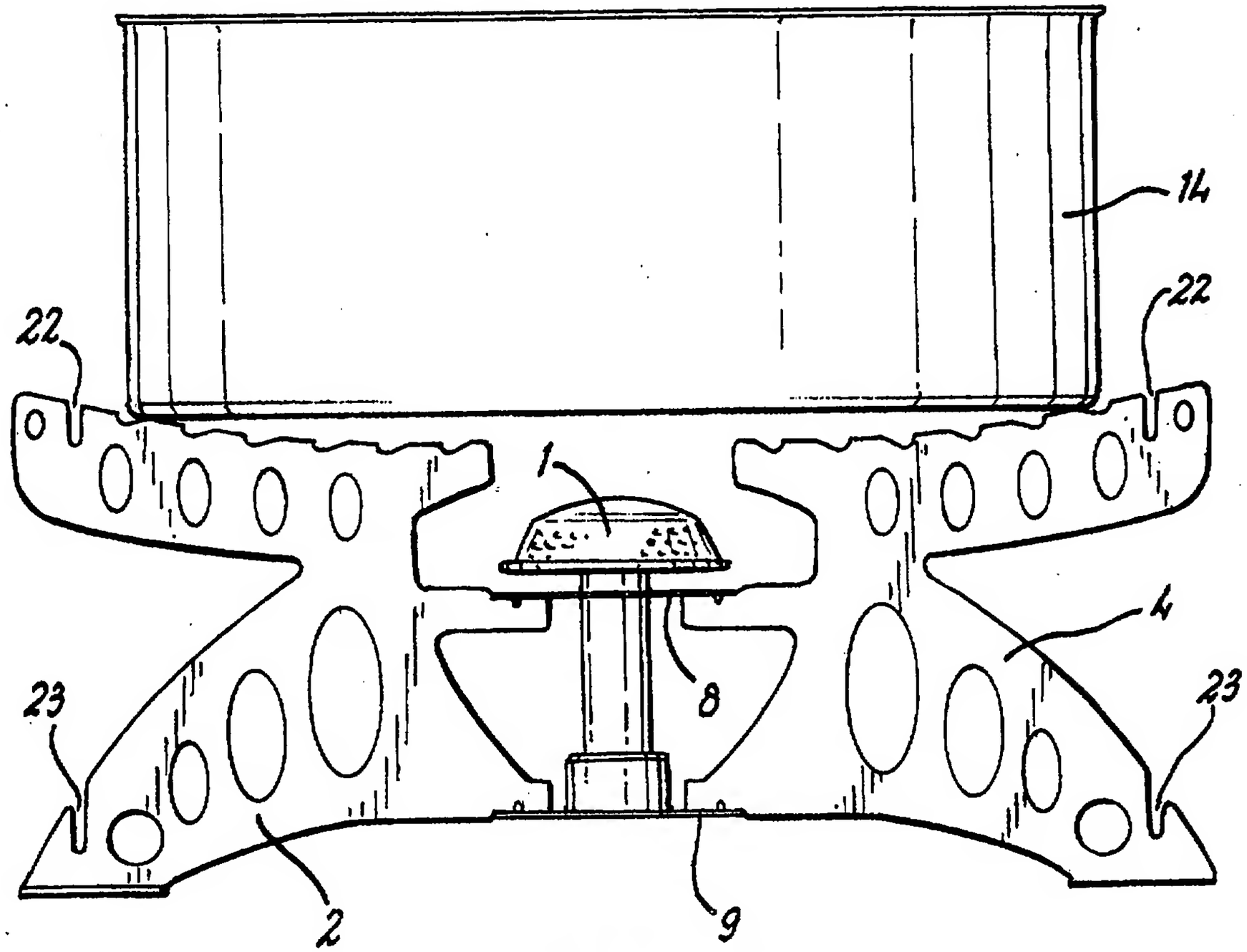

FIG.4

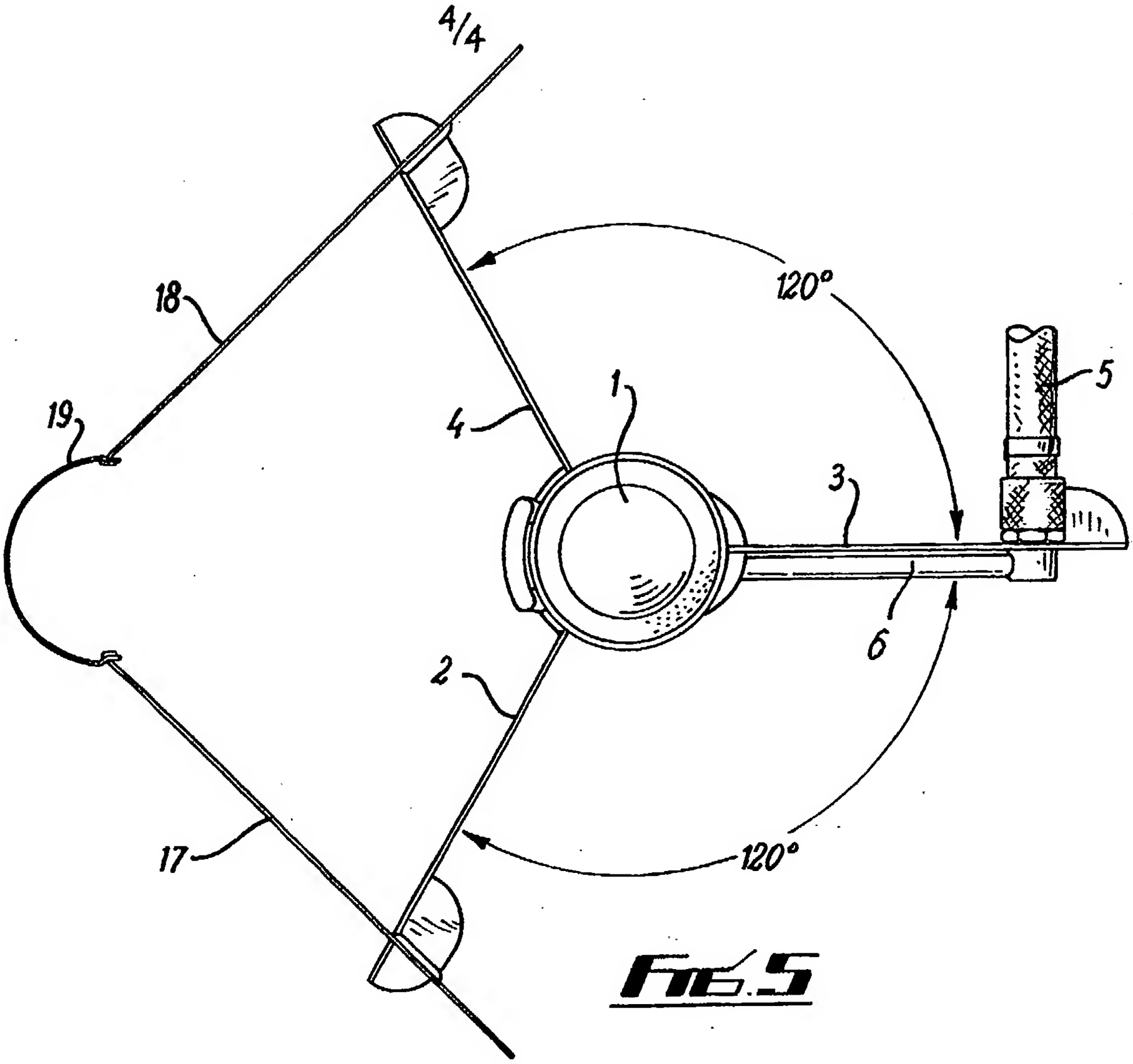

FIG.5

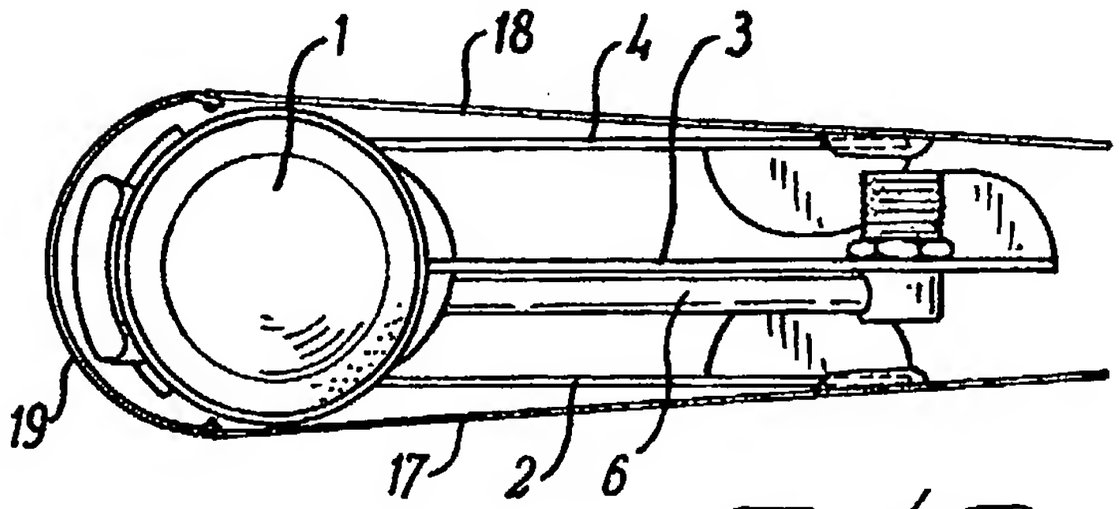

FIG.6

A WINDSHIELD

The present invention relates to a windshield for a burner.

The windshield is particularly but not exclusively intended for stoves for camping and leisure. Such stoves are often used in windy conditions. Even if the wind does not blow out the flame of the burner it may blow the flame away from a vessel being heated on the burner leading to inefficient use of gas. Windshields for such burners are known. However, they tend to be either small for ease of transport or larger which makes them difficult to use and transport.

According to the present invention there is provided a windshield for a burner comprising a pair of members which may be moved from a first stowed position in which the members extend alongside but on opposite sides of the burner and a second extended position in which the members are spaced away from but on opposite sides of the burner to permit a vessel to be placed on the burner.

In a preferred embodiment of the invention, the pair of members may be provided by two wings joined by a base. In the stowed position the wings and base adopt a substantially U-shaped form and in the extended position a substantially V-shaped form. The members may be respectively connected to legs forming a support for a vessel to be heated on the burner. These legs may be pivoted from a stowed to an extended position.

Advantageously there are three legs two of which are pivotable in relation to the third. Steps may be provided to limit pivotal movement. The legs may be connected to the members through apertures in the members and formations on the legs. The legs may have formations on their upper surfaces to locate a vessel placed on them. They may also be curved on their upper surfaces to enable a vessel to be placed on them in different positions. The wings may be pivotally connected to the base through weakened portions in the material of the members. Alternatively, the wings may be pivotally connected to the base.

In order that the invention may be more clearly understood, one embodiment thereof will now be described, by way of example, with reference to the accompanying drawings, in which:-

Figure 1 is a perspective view of a stove,

Figure 2 shows the stove of figure 1 in a folded stowed position,

Figure 3 is a perspective view from below of part of the stove of figures 1 and 2,

Figure 4 is a side elevational view of the stove part of figure 3,

Figure 5 is a plan view of the stove of figure 1, and

Figure 6 is a plan view of the stove shown in the folded position of figure 2.

Referring to the drawings and in particular to figure 1, the stove

comprises a central burner 1, and three legs 2, 3 and 4 equiangularly spaced in an operational position about the burner 1. The burner 1 is supplied with gas through a flexible hose 5 which connects with a metal gas rail tube 6 via a screw connection 7 disposed in leg 3.

Each leg 2, 3, 4 is generally V-shaped, one arm 10 of the V providing a ground contacting part and the other arm 11 of the V providing a support for a vessel to be supported on the stove. The base 12 of each V is connected to central flanges 8 and 9. Each ground contacting part comprises a foot 13. One or more of these feet may be adjustable. The other arms 11 each have a curved concave upper surface so that the three arms together form a dish in which vessel 14 to be heated may seat as shown in figure 4. The upper surface of each arm is also formed with teeth 16 which help to locate a vessel 14 placed on the arms and to resist any tendency of the vessel to slide across the arms. If a vessel adopts an off centre position, the dished nature of the arms enable the width of the vessel to direct the vessel towards the centre. Each leg 2, 3, 4 is made of metal and is perforated for lightness.

The angular nature of the teeth 16 changes with the curvature of the corresponding arm to ensure a uniform gripping action throughout the length of the support. When normally orientated, the edge of the teeth 16 is at 90° to the horizontal ensuring that they act as stops on undulating ground.

The teeth stop a vessel sliding when the stove is not on level ground which the curvature of the arms enables the vessel to be levelled. This in turn increases stability and therefore safety.

Two of the legs 2 and 4 are pivotally connected to the central flanges 8 and 9 whilst the third leg 3 is fixed. A windshield comprising two wings 17 and 18 joined by a base portion 19 is connected between legs 2 and 4. For this purpose, the free ends of both wings is formed with a pair of apertures 20, 21 through which the arms of the legs 2 and 4 extend. The arms are provided with formations 22 and 23 to locate in respective apertures in the wings. The wings 17 and 18 are pivotal about the base portion 19.

In figure 1, the stove is shown in the fully operational position with the windshield extended. Figure 2 shows the stove in the stowed folded position. Plan views of these two positions are shown in figures 5 and 6 respectively. In the stowed position legs 2 and 4 lie alongside and substantially parallel to leg 3. The wings 17 and 18 lie alongside and substantially parallel to legs 3 and 4 respectively. To move from the stowed to the operational position shown in figures 1 and 5, the wings 17 and 18 are moved outwardly. This in turn pivots the legs 2 and 4 outwardly from the positions shown in figure 6 to the positions shown in figure 5, in which the legs are at 120° angles to each other. Further movement of these legs

beyond these positions is prevented by their abutment or stop formations 26 and 27 formed on the flanges 8 and 9 respectively.

The position of the stove and the windshield may be adjusted so that the windshield faces the wind and protects the stove from its effects. As the windshield extends from the base of the legs 2, 3, 4 to above the burner 1 it protects flame of the burner from both above and below and help to prevent the flame from being blown away from a vessel placed on the burner thus saving in gas. The arrangement provides a stove which functions well in difficult conditions but which may be easily stowed for ease of transport.

It will be appreciated that the above embodiment has been described by way of example only and that many variations are possible without departing from the scope of the invention.

CLAIMS

1. A windshield for a burner comprising a pair of members which may be moved from a first stowed position in which the members extend alongside but on opposite sides of the burner and a second extended position in which the members are spaced away from but on opposite sides of the burner to permit a vessel to be placed on the burner.

2. A windshield as claimed in claim 1, in which the pair of members comprises two wings joined by a base.

3. A windshield as claimed in claim 2, in which in the stowed position, the wings and base adopt a substantially U-shaped form, and in the extended position a substantially V-shaped form.

4. A windshield as claimed in claim 2 or 3, in which the members are connected to respective legs providing a support for a vessel to be heated by the burner.

5. A windshield as claimed in claim 4, in which the legs are provided, two of which are pivotable in relation to the third.

6. A windshield as claimed in claim 5, in which means are provided to limit pivotal movement.

7. A windshield as claimed in claim 4, 5 or 6, in which the legs are connected to respective members through apertures in the members and formations on the legs.

8. A windshield as claimed in claim 4, 5, 6 or 7, in which one or more legs have formations to locate a vessel placed on them.

9. A windshield as claimed in any of claims 4 to 8, in which the legs have curved surfaces to enable a vessel to be placed on them in different positions.

10. A windshield as claimed in any of claims 2 to 9, in which the wings are pivotally connected to the base.

11. A windshield as claimed in claims 2 to 9, in which the wings are pivotally connected to the base through weakened portions in the material of the wings.

12. A windshield for a burner substantially as hereinbefore described with reference to the accompanying drawings.

INVESTOR IN PEOPLE

Application No: GB 9913725.9
Claims searched: All

Examiner: M C Monk
Date of search: 3 October 2000

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): A4D (D9A, DX); F4W

Int Cl (Ed.7): A47J (36/00, 36/24, 36/26, 37/07); F24C (3/14, 15/28)

Other: ONLINE DATABASES: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 474326	FRITHJOF LEHRE Semi-cylindrical flaps (8,9) act as windshields (l.2 p.2).	1-3,10
X	US 4512328	YOEL ARAD Curved side walls (30,32)	1-3,10

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

PUB-NO: GB002370108A

DOCUMENT-IDENTIFIER: GB 2370108 A

TITLE: Windshield for a burner

PUBN-DATE: June 19, 2002

INVENTOR-INFORMATION:

NAME	COUNTRY
OAKES, MICHAEL CAMPBELL	GB
BURGESS, JOHN	GB

ASSIGNEE-INFORMATION:

NAME	COUNTRY
GOGAS	GB

APPL-NO: GB09913725

APPL-DATE: June 12, 1999

PRIORITY-DATA: GB09913725A (June 12, 1999)

INT-CL (IPC): F24C003/14, A47J036/24 , F24C015/28

EUR-CL (EPC): F24C015/28 ; A47J036/26, F24C003/14